

Scope of Accreditation

(Measurement Method)

Accreditation Number : VLAC-008-1

Expiration Date : December 31, 2023

[Name of Laboratory]

Intertek Japan K.K.

[Test site name]

Kashima Laboratory

[Test site Address]

298-6, Sada, Kashima-shi, Ibaraki 314-0027 Japan

[Measurement Method]

Emission test

Radiated disturbance : Enclosure Port

Disturbance electric field test

[Test condition] On the reference ground plane, Measurement distance : 3m/10m
Measurement Frequency Range : 30 MHz - 1 GHz

[Test condition] Quasi Free Space, Measurement Frequency Range : 1 GHz - 40 GHz

Disturbance magnetic field strength measurement

[Test condition] Loop Antenna, Three axis loop antenna, Isotropic probe

Disturbance power measurement [Test condition] Absorbing clamp

Conducted disturbance Measurement: AC mains port / DC power line port

Voltage measurement [Test condition] AMN, High impedance voltage probe

Conducted disturbance Measurement: Telecommunication port

Voltage measurement [Test condition] ISN/AAN, Capacitive voltage probe

Current measurement [Test condition] Current probe

Conducted disturbance Measurement:

Antenna port, RF modulator output port, Tuner port, fiber port

Wanted signal and disturbance voltage test at the RF output, Selective voltmeter

Immunity test

Electro static discharge test

Contact discharge, Air discharge, Direct discharge

Radiated electromagnetic field strength

Measurement frequency range:80 MHz - 6 GHz

Electrical fast transient/burst (EFT/B)

Mains port, Telecommunication/Signal port

Surge

Mains port, Telecommunication/Signal port

RF conducted interference

Mains port measurement frequency range:150 kHz - 230 MHz

Telecommunication/Signal port measurement frequency range:150 kHz - 230 MHz

Radiated magnetic field

Interruptions and Voltage variations

Harmonic current

Harmonic current test

Voltage changes, Voltage fluctuations and Flicker test

Telecommunication equipment performance 1

Intentional Radiators (FCC Part 15 Subpart C)

Commercial Mobile Services (FCC licensed Radio Service Equipment) (Part 22 / Part 24 / Part 25 / Part 27)

General Mobile Radio Services (FCC Licensed Radio Service Equipment) (Part 22 / Part 90 / Part 95 / Part 97 / Part 101)

Citizens Broadband Radio Services (FCC Licensed Radio Service Equipment) (Part 96)

Maritime and Aviation Radio Services (FCC Licensed Radio Service Equipment) (Part 80 / Part 87)

Broadcast Radio Services (FCC Licensed Radio Service Equipment) (Part 73 / Part 74)

Based on European standards

Telecommunication equipment performance 2

Magnetic field strength [Test condition] Magnetic probe
Electric field strength [Test condition] Electric field probe
Electromagnetic field exposure:
 Conducted Power Measurement
 Radiated Power Measurement

Telecommunication equipment performance 3

Wire communication equipment

Voluntary EMC Laboratory Accreditation Center Inc.

Scope of Accreditation

(Test standards)

Accreditation Number : VLAC-008-1
Expiration Date : December 31, 2023

[Name of Laboratory]

Intertek Japan K.K.

[Test site name]

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[Test site Address]

298-6, Sada, Kashima-shi, Ibaraki 314-0027 Japan

[Test Standards]

Emission test

VCCI Technical Requirements : VCCI-CISPR 32^{*1*2}

Technical requirements under the Electrical Appliances and Materials safety Act appendix 10 Chapter 2, 4, 5, and 7

J55014-1, J55015, J55032^{*1*2}, CISPRJ 32^{*1*2}

JIS C 61326-1, JIS C 61326-2-1/-2-2/-2-3/-2-6

JIS T 0601-1-2, JIS T 0601-2-2/-2-3/-2-5/-2-6/-2-10/-2-16/-2-18/-2-21/-2-24/-2-25/-2-35/-2-37/-2-39/-2-40/-2-47/-2-63/-2-64/-2-65/-2-66/-2-68/-2-201/-2-202/-2-203/-2-204/-2-205/-2-206/-2-207/-2-208,

JIS T 60601-2-47/-2-63/-2-65/-2-68, JIS T 80601-2-55/-2-60/-2-61

FCC 47 CFR Part 15 Subpart B : ANSI C63.4-2014 (Up to 40 GHz)

FCC 47 CFR Part 15 Subpart B : ANSI C63.4a-2017 (Up to 40 GHz)

FCC 47 CFR Part 18 : FCC MP-5 (Up to 40 GHz)

CISPR 11, CISPR 14-1, CISPR 15, CISPR 22, CISPR 32^{*1*2}, ISO 8102-1

IEC 61000-6-3, IEC 61000-6-4, IEC 61000-6-8

IEC 61326-1, IEC 61326-2-1/-2-2/-2-3/2-4/-2-5/-2-6

IEC 60601-1-2, IEC 60601-2-1/-2-2/-2-3/-2-4/-2-5/-2-6/-2-8/-2-10/-2-11/-2-12/-2-16/-2-17/-2-18/-2-19/

-2-20/-2-21/-2-22/-2-23/-2-24/-2-25/-2-26/-2-27/-2-28/-2-29/-2-31/-2-33/-2-34/-2-36/-2-37/-2-39/-2-40/

-2-41/-2-43/-2-44/-2-45/-2-47/-2-49/-2-50/-2-52/-2-54/-2-57/-2-62/-2-63/-2-64/-2-65/-2-66/-2-68/-2-75/

-2-76/-2-83, IEC 80601-2-26/-2-30/-2-35/-2-49/-2-58/-2-59/-2-60/-2-71/-2-77/-2-78, ISO 80601-2-12/-2-13/

-2-55/-2-56/-2-61/-2-67/-2-69/-2-70/-2-72/-2-74/-2-79/-2-80

EN 12015, EN 55011, EN IEC 55014-1, EN IEC 55015, EN 55022, EN 55032^{*1*2}, EN 55103-1

EN IEC 61000-6-3, EN IEC 61000-6-4, EN IEC 61000-6-8

EN IEC 61326-1, EN IEC 61326-2-1/-2-2/-2-3/-2-4/-2-5/-2-6

EN 60601-1-2, EN 60601-2-1/-2-3/-2-4/-2-5/-2-6/-2-8/-2-10/-2-11/-2-12/-2-17/-2-18/-2-19/-2-21/-2-23/

-2-24/-2-25/-2-26/-2-27/-2-29/-2-33/-2-34/-2-36/-2-37/-2-40/-2-41/-2-43/-2-44/-2-45/-2-47/-2-49/-2-50/

-2-52/-2-54/-2-57/-2-62/-2-63/-2-64/-2-65/-2-68, EN IEC 60601-2-2/-2-16/-2-20/-2-22/-2-28/-2-31/-2-39/

-2-66/-2-75/-2-76/-2-83, EN 80601-2-35/-2-58, EN IEC 80601-2-30/-2-49/-2-59/-2-60/-2-71

BS EN 55011, BS EN IEC 55014-1, BS EN IEC 55015, BS EN 55022, BS EN 55032^{*1*2}

BS EN 12015, BS EN IEC 61000-6-3, BS EN IEC 61000-6-4, BS EN IEC 61000-6-8

BS EN IEC 61326-1, BS EN IEC 61326-2-1/-2-2/-2-3/-2-4/-2-5/-2-6

BS EN 60601-1-2, BS EN 60601-2-1/-2-3/-2-4/-2-5/-2-6/-2-8/-2-10/-2-11/-2-12/-2-17/-2-18/-2-19/-2-21/

-2-23/-2-24/-2-25/-2-26/-2-27/-2-29/-2-33/-2-34/-2-36/-2-37/-2-40/-2-41/-2-43/-2-44/-2-45/-2-47/-2-49/

-2-50/-2-52/-2-54/-2-57/-2-62/-2-63/-2-64/-2-65/-2-68, BS IEC EN 60601-2-2/-2-16/-2-20/-2-22/-2-28/

-2-31/-2-39/-2-66/-2-75/-2-76/-2-83, BS EN 80601-2-35/-2-58, BS EN IEC 80601-2-30/-2-49/-2-59/-2-60/

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AS CISPR 11, AS CISPR 14.1, AS CISPR 15, AS/NZS CISPR 22, AS/NZS CISPR 32^{*1*}
AS/NZS 3200.1.2, AS/NZS 61000.6.3, AS/NZS 61000.6.4
CNS 13438, CNS 13783-1, CNS 13803
ICES-001, ICES-003, ICES-005, ICES-Gen

^{*1} Except for measurement in a FAR, ^{*2} Except for broadcast radio receivers

Immunity test

CISPR 14-2, CISPR 24, CISPR 35^{*3}, ISO 8102-2
IEC 61547, IEC 61000-6-1, IEC 61000-6-2,
IEC 61000-4-2/-4-3/-4-4/-4-5/-4-6/-4-8/-4-11, IEC 61000-4-39 (Frequency Range 9 kHz - 26 MHz)
IEC 61326-1, IEC 61326-2-1/-2-2/-2-3/-2-4/-2-5/-2-6
IEC 60601-1-2, IEC 60601-2-1/-2-2/-2-3/-2-4/-2-5/-2-6/-2-8/-2-10/-2-11/-2-12/-2-16/-2-17/-2-18/-2-19/
-2-20/-2-21/-2-22/-2-23/-2-24/-2-25/-2-26/-2-27/-2-28/-2-29/-2-31/-2-33/-2-34/-2-36/-2-37/-2-39/-2-40/
-2-41/-2-43/-2-44/-2-45/-2-47/-2-49/-2-50/-2-52/-2-54/-2-57/-2-62/-2-63/-2-64/-2-65/-2-66/-2-68/-2-75/
-2-76/-2-83, IEC 80601-2-26/-2-30/-2-35/-2-49/-2-58/-2-59/-2-60/-2-71/-2-77/-2-78, ISO 80601-2-12/-2-13/
-2-55/-2-56/-2-61/-2-67/-2-69/-2-70/-2-72/-2-74/-2-79/-2-80

EN IEC 55014-2, EN 55024, EN 55035^{*3}, EN 55103-2
EN 12016, EN 50130-4, EN 61547
EN IEC 61000-6-1, EN IEC 61000-6-2
EN 61000-4-2/-4-4/-4-5/-4-6/-4-8, EN IEC 61000-4-3/4-11
IEC 61000-4-39 (Frequency Range 9 kHz - 26 MHz)
EN IEC 61326-1, EN IEC 61326-2-1/-2-2/-2-3/-2-4/-2-5/-2-6
EN 60601-1-2, EN 60601-2-1/-2-3/-2-4/-2-5/-2-6/-2-8/-2-10/-2-11/-2-12/-2-17/-2-18/-2-19/-2-21/-2-23/
-2-24/-2-25/-2-26/-2-27/-2-29/-2-33/-2-34/-2-36/-2-37/-2-40/-2-41/-2-43/-2-44/-2-45/-2-47/-2-49/-2-50/
-2-52/-2-54/-2-57/-2-62/-2-63/-2-64/-2-65/-2-68, EN IEC 60601-2-2/-2-16/-2-20/-2-22/-2-28/-2-31/-2-39/
-2-66/-2-75/-2-76/-2-83, EN 80601-2-35/-2-58, EN IEC 80601-2-30/-2-49/-2-59/-2-60/-2-71

BS EN 12016, BS EN 50130-4, BS EN 61547
BS EN IEC 55014-2, BS EN 55024, BS EN 55035^{*3}, BS EN 55103-2
BS EN IEC 61000-6-1, BS EN IEC 61000-6-2
BS EN 61000-4-2/-4-4/-4-5/-4-6/-4-8, BS EN IEC 61000-4-3/4-11
IEC 61000-4-39 (Frequency Range 9 kHz - 26 MHz)
BS EN IEC 61326-1, EN IEC 61326-2-1/-2-2/-2-3/-2-4/-2-5/-2-6
BS EN 60601-1-2, BS EN 60601-2-1/-2-3/-2-4/-2-5/-2-6/-2-8/-2-10/-2-11/-2-12/-2-17/-2-18/-2-19/-2-21/
-2-23/-2-24/-2-25/-2-26/-2-27/-2-29/-2-33/-2-34/-2-36/-2-37/-2-40/-2-41/-2-43/-2-44/-2-45/-2-47/-2-49/
-2-50/-2-52/-2-54/-2-57/-2-62/-2-63/-2-64/-2-65/-2-68, BS EN IEC 60601-2-2/-2-16/-2-20/-2-22/-2-28/
-2-31/-2-39/-2-66/-2-75/-2-76/-2-83, BS EN 80601-2-35/-2-58, BS EN IEC 80601-2-30/-2-49/-2-59/-2-60/
-2-71

AS/NZS CISPR 14.2, AS/NZS CISPR 24, AS/NZS 3200.1.2, AS/NZS 61000.6.1, AS/NZS 61000.6.2
JIS C 61000-6-1/-6-2
JIS C 61326-1, JIS C 61326-2-1/-2-2/-2-3/-2-6
JIS T 0601-1-2, JIS T 0601-2-2/-2-3/-2-5/-2-6/-2-10/-2-16/-2-18/-2-21/-2-24/-2-25/-2-35/-2-37/-2-39/-2-40/
-2-47/-2-63/-2-64/-2-65/-2-66/-2-68/-2-201/-2-202/-2-203/-2-204/-2-205/-2-206/-2-207/-2-208,
JIS T 60601-2-47/-2-63/-2-65/-2-68, JIS T 80601-2-55/-2-60/-2-61

^{*3} Except for Annex A (Broadcast reception function), Annex H (Telephony function) and xDSL Equipments

Harmonic Test in Public Low Voltage Systems

IEC 61000-3-2, IEC 61000-3-3, IEC 61000-3-11, IEC 61000-3-12
IEC 61000-6-3, IEC 61000-6-8
IEC 61326-1, IEC 61326-2-1/-2-2/-2-3/-2-4/-2-5/-2-6
IEC 60601-1-2, IEC 60601-2-1/-2-2/-2-3/-2-4/-2-5/-2-6/-2-8/-2-10/-2-11/-2-12/-2-16/-2-17/-2-18/-2-19/
-2-20/-2-21/-2-22/-2-23/-2-24/-2-25/-2-26/-2-27/-2-28/-2-29/-2-31/-2-33/-2-34/-2-36/-2-37/-2-39/-2-40/
-2-41/-2-43/-2-44/-2-45/-2-47/-2-49/-2-50/-2-52/-2-54/-2-57/-2-62/-2-63/-2-64/-2-65/-2-66/-2-68/-2-75/
-2-76/-2-83, IEC 80601-2-26/-2-30/-2-35/-2-49/-2-58/-2-59/-2-60/-2-71/-2-77/-2-78, ISO 80601-2-12/-2-13/
-2-55/-2-56/-2-61/-2-67/-2-69/-2-70/-2-72/-2-74/-2-79/-2-80

EN IEC 61000-3-2, EN 61000-3-3, EN IEC 61000-3-11, EN 61000-3-12
EN IEC 61000-6-3, EN IEC 61000-6-8
EN IEC 61326-1, EN IEC 61326-2-1/-2-2/-2-3/-2-4/-2-5/-2-6
EN 60601-1-2, EN 60601-2-1/-2-3/-2-4/-2-5/-2-6/-2-8/-2-10/-2-11/-2-12/-2-17/-2-18/-2-19/-2-21/-2-23/
-2-24/-2-25/-2-26/-2-27/-2-29/-2-33/-2-34/-2-36/-2-37/-2-40/-2-41/-2-43/-2-44/-2-45/-2-47/-2-49/-2-50/
-2-52/-2-54/-2-57/-2-62/-2-63/-2-64/-2-65/-2-68, EN IEC 60601-2-2/-2-16/-2-20/-2-22/-2-28/-2-31/-2-39/
-2-66/-2-75/-2-76/-2-83, EN 80601-2-35/-2-58, EN IEC 80601-2-30/-2-49/-2-59/-2-60/-2-71

BS EN IEC 61000-3-2, BS EN 61000-3-3, BS EN IEC 61000-3-11, BS EN 61000-3-12
BS EN IEC 61000-6-3, BS EN IEC 61000-6-8
BS EN IEC 61326-1, BS EN IEC 61326-2-1/-2-2/-2-3/-2-4/-2-5/-2-6
BS EN 60601-1-2, BS EN 60601-2-1/-2-3/-2-4/-2-5/-2-6/-2-8/-2-10/-2-11/-2-12/-2-17/-2-18/-2-19/-2-21/
-2-23/-2-24/-2-25/-2-26/-2-27/-2-29/-2-33/-2-34/-2-36/-2-37/-2-40/-2-41/-2-43/-2-44/-2-45/-2-47/-2-49/
-2-50/-2-52/-2-54/-2-57/-2-62/-2-63/-2-64/-2-65/-2-68, BS EN IEC 60601-2-2/-2-16/-2-20/-2-22/-2-28/
-2-31/-2-39/-2-66/-2-75/-2-76/-2-83, BS EN 80601-2-35/-2-58, BS EN IEC 80601-2-30/-2-49/-2-59/-2-60/
-2-71

AS/NZS 3200.1.2, AS/NZS 61000.3.2, AS/NZS 61000.3.3, AS/NZS 61000.3.12

JIS C 61000-3-2
JIS C 61326-1, JIS C 61326-2-1/-2-2/-2-3/-2-6
JIS T 0601-1-2, JIS T 0601-2-2/-2-3/-2-5/-2-6/-2-10/-2-16/-2-18/-2-21/-2-24/-2-25/-2-35/-2-37/-2-39/
-2-40/-2-47/-2-63/-2-64/-2-65/-2-66/-2-68/-2-201/-2-202/-2-203/-2-204/-2-205/-2-206/-2-207/-2-208,
JIS T 60601-2-47/-2-63/-2-65/-2-68, JIS T 80601-2-55/-2-60/-2-61

Telecommunication equipment performance 1

Intentional Radiators (FCC Part 15 Subpart C) :ANSI C63.10-2013 (Up to 26.5 GHz)
Commercial Mobile Services (FCC licensed Radio Service Equipment) (Part 22 / Part 24 / Part 25
/Part 27) : ANSI/TIA-603-E-2016, ANSI/TIA-102.CAAA-E-2016, ANSI C63.26-2015 (Up to 10 GHz)
General Mobile Radio Services (FCC Licensed Radio Service Equipment) (Part 22 / Part 90 / Part 95
/ Part 97 / Part 101) : ANSI/TIA-603-E-2016, ANSI/TIA-102.CAAA-E-2016,
ANSI C63.26-2015 (Up to 10 GHz)
Citizens Broadband Radio Services (FCC Licensed Radio Service Equipment) (Part 96) :
ANSI/TIA-603-E-2016, ANSI/TIA-102.CAAA-E-2016, ANSI C63.26-2015 (Up to 10 GHz)
Maritime and Aviation Radio Services (FCC Licensed Radio Service Equipment) (Part 80 / Part 87) :
ANSI/TIA-603-E-2016, ANSI C63.26-2015 (Up to 10 GHz)
Broadcast Radio Services (FCC Licensed Radio Service Equipment) (Part 73 / Part 74) :
ANSI/TIA-603-E-2016, ANSI/TIA-102.CAAA-E-2016, ANSI C63.26-2015 (Up to 10 GHz)
EN 301 489-1/-3/-17, EN 300 330 (Class 1, 13.56 MHz Only)

Telecommunication equipment performance 2

IEC 62233, IEC 62311, IEC 62479
EN 50371, EN 62233, EN 62311, EN 62479

Telecommunication equipment performance 3

FCC Part 68, ANSI/TIA-968-B/-B-1/-B-2/-B-3
IMDA TS PSTN Issue 1
AS/CA S002:2010
ETSI ES 203 021-1:2005, ETSI ES 203 021-2:2006, ETSI ES 203 021-3:2006
TBR 21:1998

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